REMARKS

Reconsideration and withdrawal of the rejections set forth in the Office Action dated September 16, 2004 are respectfully requested. In the Office Action, Claims 1 to 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukihuru (U.S. Patent No. 6,150,748).

Applicant has amended the rejected and objected matter noted by the Examiner. In view of the amendments above and the remarks set forth, Applicant respectfully requests reconsideration.

A. Rejections under 35 U.S.C. § 103(a)

1. Rejection of Claims 1 to 21 under 35 U.S.C. § 103(a) as being unpatentable over Fukihuru.

In the present invention, a buffer layer 30 is located between the substrate 20 and the electronic device 10. The buffer layer 30 has an opening to expose the first plurality of contact pads 11. The buffer layer 30 surrounds the edge of the electronic device 10 and a fastening face of the edge of the electronic device 10 and the buffer layer is unflattened.

In the Office Action, Examiner argues that a buffer layer 34 or 51-1 is between the substrate and the electronic device. After carefully review of the citation, applicant does not agree with the Examiner. Actually, there is no buffer in Fukihuru. Referring to page 4 lines 17-22, the resin member 34 of Fukihuru is formed on SAW element 1 surrounding the interdigital electrode 2. The resin member 34 ensures a spacing of SAW element 1 from the printing substrate 36. The space enclosed by SAW element 1, print substrate 36 and resin member 34 makes an airtight chamber protected from the environment. Thin-films 31 are separate from the SAW element 1; therefore the conductive film 32 surrounding edges need to be conductive.

Fukihuru fails to disclose the buffer 30 of the present invention. Indeed, the corresponding element covered on the claimed invention's reference numeral 10 is element 32 of Figure 3 of Fukihuru. The lower portion of element 32 corresponds to the buffer 30 of the present invention. However, element 32 is a conductive film 32;

therefore, it is not used as the buffer. There is no actual corresponding element in Fukihuru to the elements 30 of the present invention that acts as buffer that is "unflattened".

Further, the buffer layer 30, which may be an organic film layer and a polymer film layer (claim 3 of the present invention), is not a conductive film. However, the conductive film 32 of Fukihuru has a thermocrimping property (property of connecting a material with other material under heat and pressure) (see page 4, lines 9-11). However, the buffer layer 30 creates an airtight contact during the bump bonding 16 process without thermocrimping. That is to say, the buffer later 30 functions as a gasket directly (physically squeezed tight). Therefore, Fukihuru teaches away from the present invention. Beside, the conductive film 32 of Fukihuru needs an additional resin member 34 to make an airtight chamber. The claimed invention may achieve an airtight seal without the additional member 34.

Furthermore, the conductive film 32 needs to surround the SAW element 1 horizontally and vertically across the edge and boundary of the SAW element 1. Finally, the conductivity of the present invention is achieved by metallization while the conductivity of Fukihuru uses A1 thin-films 31 and the conductive film 32 to achieve the purpose.

Accordingly, the thermocrimping and conductive property of the conductive film 32 of Fukihuru leads to several drawbacks: (a) limits material type and increases cost; (b) process complication; (c) requires additional resin member 34 to make an airtight chamber. In contrast, the present invention only requires a buffer layer 30 to create the airtight contact during the bump bonding 16 process without thermocrimping.

Moreover, Fukihuru does not disclose a structure where the SAW element 1 and the resin member 34 is unflattened and has a corner (claim 9). In Fukihuru, the SAW element 1 and the resin member 34 are flattened, as shown in Figure 3 of Fukihuru.

The Examiner argues that the specification does not disclose the critical nature of the claimed dimension, i.e. buffer layer 30 with a thickness of 30-200 microns (claim 8), or any unexpected result arising therefrom, and that applicant should show that the chosen

dimensions are critical *(In re Woodruff)*. In general, the thickness of solder ball is 30-100μm. The solder ball bonding process could reduce the height of solder ball, for example 20-90μm after bonding. Besides, the compression deformation for the organic buffer layer can be reach range from a few percent up to 300%. Therefore, the thickness of the buffer layer is preferably 30-200μm to meet the requirement of compression deformation. For example, where thickness of the solder ball is 50-60μm, the thickness of the buffer layer is 75μm. The thickness of the solder ball may reach 30μm after bonding.

Fukihuru does not teach expressly the subject matter of claims 1 and 12. Furthermore, Claims 2-11 and 13-21 depend from claims 1 and 12, respectively.

In view of the foregoing, the claims pending in the application comply with the requirements of 35 U.S.C. § 103 and patentably define over the applied art. A Notice of Allowance is, therefore, respectfully requested. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 359-6488.

Respectfully submitted,
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Date: 1/14/05

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